Det. Bel Isle & Windsor Ferry Co.

DEVOTED TO NAVIGATION, COMMERCE, ENGINEERING AND SCIENCE.

VOL. X NO. 51. CLEVELAND, O., DECEMBER 20 1888. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND, OHIO.

The Ship owners' Drydock compar Cleveland has been authorized to increase its capital stock from $150,000 to $200,000.

The large towbarge Geo. W. Adams, Captain H. L. Mills, owned by Corrigan Bros., of this port, has had a successful season all through. She is now now laid up in Buffalo for the winter.

We take pleasure in recommending the Mount Olive Erasive Liquid, manufactured by Capt. D. A. McLachlin, for cleaning varnish and painted articles without injury to the polish. Price 40c per gallon. Address the Captain at 633 Trumbell Ave., Detroit, Mich.

The propeller Horace A. Tuttle, Captain J, A. Nicolson has laid up here, after a successful season. She made her first start from Cleveland on the 12th of May and finished her season's work on December 8th. She has traded principally on Lake Superior and carried twenty-one cargoes. viz: 11 cargoes of iron ore, 9 cargoes of coal, and one cargo of wheat. The Horace A. Tuttle under the skillfull guidance of her executive officers has passed through her whole season's work without a single mishap or casualty. This isnot a record ofluck, but of strict attention to duty by qualified men, who are alive to all of the emergencies liable to occur in the navigation of a speedy, and high class modern steamer.

The life saving station at this port closed on the 15th, simultaneously with the other ten stations in the ninth district for the season of 1888. The Cleveland staff has covered a period of just eight months of service, the crew having been sworn in on the 15th of last April. The term thus ended has been less eventful than most seasons so far as the number of large disasters are concerned, bnt the record of the crew is nevertheless one of as faithful performance of duty as though such had been the case. They have been as constantly on watch, have saved numerous lives which would have been lost in connection with smaller misfortunes, rescued valuable property, and have at all times been prompt and efficient in their services and assistance, fully maintaining the excellent reputation of previous years.

The propeller E. P. Wilber, owned by the Lehigh Valley Co., Captain P. McFarlane, has the distinction of being the last arrival here this season. She came light from Buffalo in 12 hours from pier to pier. As considerable attention has been paid to this vessel during the season by vessel-owners, builders, and charterers, we herewith give an accounnt of her performances for the season. She was built by the Globe Iron Works Co., and sailed on her trial trip to Buffalo on the 20th of May and gave entire satisfaction. She left Buffalo on the 23rd of May, coal laden for Chicago, and up to date has made 18 round trips, or 19 including her trial and return trips. She has carried 36 cargoes, viz: four round trips between Chicago and Buffalo, taking coal up and bringing grain and package freight down. Fourteen trips to Gladstone, Mich., carrying coal and merchandise up, and flour down to Buffalo. The entire season's work of this fine steamer has been eminently satisfactory to her owners, officers and builders.

Work at the Globe Iron Works Shipyard, is progressing satisfactorily to all parties concerned, the recent blaze has given employment to a number of men and the erection of new machine shops are being pushed rapidly along. The Lehigh Valley line boat is nearly completed and she will be launched early in January, the exact date can not yet be given and further particulars may be left over till our next issue. At the engine and boiler shops they are very busy for besides the machinery to be placed in the boats now under construction, contracts have been entered into for two boilers measuring 16 feet long to the order of the Union Pacific railroad company, 4 sulphite boilers measuring 40 feet in length by 13 feet in diameter to be shipped to Dexter, N. Y. These large boilers will be launched and towed down Lake Erie by a tug boat, due notice of which will be published in the columns of this paper, so that our subscribers may not be put to the trouble of reporting the sighting of a sea monster in a fog.

Mr. John Griffin, superintendent carpenter of the Michigan Central Ferry line, is in the city attending the fitting out of the company's new boat.

The scheme to bridge the Detroit river, is meeting with considerable opposition from vessel owners, not only at this port, but according to our advices from all of the larger ports on the chain of lakes.

The Cleveland Shipbuilding Co., have the new steamer building for the Cleveland Iron Mining Co., about half plated, a considerable showing for eight weeks work. The keel of the second boat for the same company will be laid this week and the materials for her construction are well advanced, the local inspectors Messrs. DeWolf and McGath inspected the machinery of the Michigan Central ferry boat to-day and the testing was satisfactory in every respect, in addition to their shipbuilding contracts the firm have four Scotch type boilers under construction and iron ordered for five more each to measure 14 feet in length by 11 feet 6 inches in diameter.

McWestaway, supervising engineer, of the Michigan Central ferry line, is in the city to-day and leaves again for Detroit on Friday.

TOLEDO, OHIO.

Special to the Marine Record.

The Toledo foundry and machine company, have been awarded the contract to build a dredge for Buffalo parties. She will be built entirely of iron and steel and will be put together in the strongest possible manner as she is to be used for excavating rock. She is to be completed by April 15th and is to cost $20,000 finished.

The Toledo marine men are indebted to Geo. H. Ketchum, for a trolding card giving a table of knots and miles.

Mr. L. S. Sullivan, the well known vessel agent is wearing a large sized smile, cause a girl baby. Cigars.

Captain Louis M. Stoddard first mate of the large steamship North Wind has arrived home and will go into winter quarters immediately. Toledo may well feel proud of having so promising a young man as he is, first mate of so fine a boat and his well known and popular father Captain Geo W. Stoddard, master of the Northern Light a sister boat of the North Wind.

Captain Brown Chamberlain, of the tug A. W. Colton, is here, he will go back to Detroit for the winter. The marine men here regret that he will not winter in Toledo. The A. W. Colton is laid up in Detroit.

The St. Peter is receiving a new mizzen mast.

TORONTO, ONT.

The first regular meeting of the Canadian Engineers' Association was held in room C, Shaftesbury hall. Several new members were admitted and a few applications for admission received. Mr. John Salt, C. E., gave a short address on steam and its expansion. An interesting discussion on the question ensued. It is proposed to hold lectures on subjects which will be beneficial to the members at the meetings during the season. A special meeting will be held to consider the proposition of Honorable G. W. Ross, on the question of mechanical instruction at the school of practical science.

SANDUSKY, OHIO.

The owners of the tugs Buffalo and Monk ask $2,000 for towing the steambarge Michigan into Sandusky while she was afire last fall, but the barge owners refuse to pay the amount and a suit is looked for. The Michigan was nearly ruined by the fire.

MENOMINEE, MICH.

There is reported to be 150,000,000 feet of lumber piled on the docks of Menominee river at Menominee and Marinette.

CHICAGO, ILL.

Special to the Marine Record.

Happy Tim Griffin, chief engineer of the steamer Japan, of the Anchor line, with his family, passed through Chicago on Friday on the way to Southern California, to spend the winter. We wish him a pleasant trip and safe return.

Captain F. J. Miner, of the schooner Annabel Wilson, is here looking after her and the steambarge C. Hebard. He is having the schooners, decks, ceiling and topside; re-calked. The remainder of Chas. Hebard & Son's fleet, comprising the steambarge Alpena and barge Aloha and Brink are in winter quarters at Pequaming.

Captain P. O'Connor is giving the schooner Sunrise new stanchions stringers rail and quick work forward.

It is with feelings of deepest regret that we announce the sudden death of Thomas Quayle of the firm of McKeown & Quayle, the well known shipsmith of 32 Kinzie street Chicago. The two partners who were also next door neighbours, left their workshop Thursday evening last soon after five o'clock and drove to the deceased residenee at 34 Lincoln avenue. Mr. McKeown went to his home leaving Mr. Quayle unhitching his horse, before he had completed this he went into his house and fell down in an appopleptic fit, his daughters sent for his partner and a doctor and all was done for him that human aid could do, but he expired in his partner's arms at 6:30 Thursday evening. The deceased was a widower and leavs one son aged 27 years and four daughters, the youngest of whom is seven years of age, who have lost a kind, good father, who was greatly respected by all who knew him. The firm of McKeown & Quayle has been in existence for 31 years. The deceased was buried on Sunday at Rosehill cemetery with Masonic honors, he having been a member of the St. Bernard commandery. Many vessel men also followed their old friend to his last earthly home.

At Miller Bro's. shipyard, the steamship Siberia went out of dock Monday morning and her place was taken by the steamer Boscobel for bottom calking and the tug John Torrent to have her bottom ironed to enable her to do work in the river this winter. The steamship John Emery Owen was in dock for repairs to her wheel, the schooner Jessie Phillips to have a leak stopped and a piece of keel forward, the barge Alert for bottom calking, the steamships Haskell and Averill have received necessary repairs, the schooner Mediator will go out of dock this week as good and strong as when new. She has received a new stern and quarter deck, nearly all new bottom, with plank six inches thick on the bilge and four inch thick above, part new keelsons, an extra piece on top of main keelson, re-calking and re-fastening all over. Captain Oliver Swanson, who is part owner has been superintending the work.

Geston and Swinson, sailmakers at 250 South Water street, have 35 vessel's outfits stowed away in their lofts for safe keeping.

The Dunham towing and wrecking company are making repairs on their twelve tugs that will cost $20,000. Their tug G. W. Gardner's hull will be entirely rebuilt and will have new steam steering gear, same as on their tug O. B. Green; their tug W. R. Crowell will receive a new boiler and steam steering gear; their tug Robert Tarrant will have her hull rebuilt and a new boiler; their tug W. L. Ewing her hull rebuilt and a new cylinder on her engine. All the company's boats will receive iron bunkers and general repairs. Several of their tugs will receive iron tow posts, which will be placed farther forward to make the tugs more suitable for steamship towing. The company will keep their fine tugs T. T. Morford and O. B. Green running during the winter.

The steambarge C. H. Starke, Captain Dan Sullivan, arrived Wednesday morning, December 19 with 425,000 feet of lumber from Naubanway, Lake Michigan. She left here Wednesday night, December 12 and made an excellent trip and experienced good weather. She will go to Milwaukee and lay up.

The Vessel Owners' Towing Association are giving their tugs Thomas Hood, J. V Taylor and E. P. Ferry new deck frames and decks, coambings and rails; their tug Protection will receive a new boiler, their tug A. G. VanSchaick will be rebuilt and raised two feet. All their tugs will receive a general overhauling. Their tug Calumet will be kept running during the winter.

I cannot hear of any charters having been made for winter storage. They will probably come along soon. Last year at this date some had been made. WILLIAMS.

MILWAUKEE, WIS.

Special to the Mairne Record.

There are only two more boats expected here to lay up, the steambarges Starke and Carter. There does not seem to be as many vessels and steamers laid up here as in former years, the river being comparatively empty.

The F. and P. M. road will run four boats all winter between here and Ludington and they seem to be inadequate to tho amount of work there is to do.

The steamer F. L. Vance was let out of Wolf and Davidson's dock last week, having been thoroughly recaulked below the water line. Her place in the dock was taken by the steamer Progress, which will receive a $40,000 rebuild and come out in the spring almost better than a new boat.

The schooner M. E. Tremble is receiving a general rebuild at Wolfe and Davidson's, as is also the steamer New Era. The steamer R. Holland will receive general repairs at Wolf and Davidsons.

At the Milwaukee Ship yard Co., propeller Pridgeon is receiving general repairs, steamer Nahant an overhauling, schooners Moonlight and Porter general repairs, and they have the keel partially laid for the new steambarge, building for a Milwaukee syndicate. She is 225 feet keel, 20 feet 2 inches depth of hold, 36½ feet beam, and her motive power consists of a fore and aft compound engine with, cylinders 24 inch and 44 inch in diameter, by 42 inch stroke, from S. F. Hodge and Co., of Detroit, and two boilers 8 ½ feet diameter by 15 feet long, marine fire box siyle, built by R. Davis, of this city.

James Sheriffs' Sons have a contract to furnish the Milwaukee tug company with a high pressure engine 20 inches diameter, by 24 inch stroke, for their new tug building at Sheboygan. The tug Starke Bros' engine will be put in the other new hull.

T. L. McGregor, formerly of Detroit, has purchased the Wisconsin boiler works from F. M. Wilkinson, and will carry on a general boiler works. He has contracts with the Milwaukee tug company to furnish them two boilers for their new tugs.

Messrs. C. F. Ruggles and others of Manistee, have decided not to build a steam barge after all and therefore, Messrs. Reibolt, Walters and Co., who had ordered the timber for the hull, are that much out.

Probably the present owners of the steam barge Joys, will contract for a new barge of the same size as the Manistee parties intended to build. If they do, Messrs. Riebolt, Walter and Co., will build the hull.

There are laid up at this port 21 steamers with an ore capacity of 36,900 tons or 1,370,000 bushels grain, 16 steamers with lumber capacity of 4½ million feet, 12 schooners with a grain capacity of 515,000 bnshels, 60 schooners lumber capacity of about 5½ millions, 4 steam yachts, 10 tugs, in all a total of 123 steam vessels.

Sheriffs have been giving the tug Temple Emery, a general overhauling of machinery. J-

ASHLAND, WIS.

The papers transferring the North Star Iron Works from Chicago to this city have been signed. The company will build a dry-dock early in the spring and employ 400 hands.

KENOSHA, WIS.

Special to the Marine Record.

The season of navigation that has just terminated at this port is one that the vessel men as well as all others interested in marine affairs can look back with pleasure and record one more season of success although lake freights have not ruled quite as well as the season of 1887 yet there is a fair margin on the side of the vessel owner. The fall of 1887 caused the destruction of several of our fleet which has been replaced during the past season by a class of more substantial and seaworthy vessels.

Th arrivals at this port for the season just closed was 335 including 90 steam craft the first to arrive was the steambarge Monitor, April 14th, the last arrival the schooner Morning Star, December 8th, the schooner Contest, was the first to take her departure on March 31st, and the last clearance was issued to the tug John Earerson. C. A. E.

ASHTABULA HARBOR, OHIO.

Special to the Marine Record.

The dredges Hercules and Erie are working night and day cutting through the old L. S, dock No. 1. They are attended by tugs Thomas Thompson and Red Cloud, and as soon as the work is finished they will all go into winter quarters here.

Captain George Fields, whom all lake men know as being connected with the tug line here, is lying at the point of death with neuralgia of the heart.

W. W. Starkey, an old lake captain, now in the grocery business here, was so unfortunate as to lose one of his eyes by inflammation.

The Lake Shore railroad steam shovel is working at the clay bank east of the Lake Shore docks, to make more room for their fast increasing business. The clay is dumped into the swamp west of the Lake Shore slip, to extend the storage capacity in that direction.

FRANKFORT, MICH.

Propeller Lawrence called here December 5 on her last trip en ronte to Chicago, where she will lay up.

Tug Alice Campbell went into winter quarters December 3.

The shore steamers John D. Dewar and George D. Sanford are making daily trips to Manistee.

Tug Jessie Slyfield is being hauled out on the Island near the harbor piers.

The Frankfort, also Point Betsy life station, closed at noon December 5.

Schooner Jennie Weaver is laid up at South Frankfort.

The fishing tugs Hannah Sullivan, John Smith, Maggie Dutz, Maria, B. M, Pottowattomie, are still engaged in fishing in vicinity of the islands.

No ice in harbor at time of writing, December 5: fine fall weather.

Scow Mishicott is hard up at Onekama, Portage Lace, Mich.

EAST SAGINAW, MICH.

Captain Chesley Wheeler, of Bay City, father of congressman-elect and the well known shipbuilder, F. W. Wheeler of West Bay City, has extensive property here, and will at once establish a ship yard and give employment to fifty men. Captain Wheeler has designed and will build a propeller for B. Boutelle, of Bay City. The vessel will be 180 feet long, 34 feet beam, 13 feet depth of hold, and cost $45,000.

HAMILTON, ONT.

At the court of general sessions the marine action of Myles v. Foster took up the entire attention of the court. Thomas Myles & Son, of this city, brought suit against D. Foster for $200 damages. In June, 1887, the little steamer Foster was engaged to tow the three masted schooner Gulnair down from the piers to Myles' wharf. As the steamer and her tow were entering the canal the Gulnair swung round and collided with the north pier. Each party claim that the other was to blame for the collision. H. Carscallen for plaintiff; James Parkes for defence. During the progress of the case the knowledge of nautical terms possessed by the court was severely taxed. The court of general sessions returned a verdict in favor of the plaintiff for $150.

MARITIME LAW.

MARITIME LIEN—SUPPLIES—PERSONAL DEALINGS WITH OWNER—PRESUMPTION—CREDIT OF VESSEL.—GEORGE V. STEAMBOAT AERONAUT.

D. S. District Court, Southern District of New York.

1. In foreign ports, supplies furnished by material men upon the order of the master, or of the ship's agents, without knowledge of any charter forbidding a credit of the ship, and without means of knowing of any such charter, are presumptively furnished on the credit of the ship.

2. But, upon personal dealings with general owners or with charterers who are owners *pro hac vice*, whether at their own place of residence, or at another port, the legal presumption is that the dealings are not with the ship, but upon the ordinary personal responsibility of the owners; and no lien is in such a case sustained, unless a credit of the ship is proved to be within the intention of both parties.

3. Supplies were furnished to the steamboat A. by the libelants, in New York. The owner of the vessel resided in Jersey City, and the vessel was chartered to a corporation whose office was in New York, the charterer being the owner *pro hac vice*, and to pay all the vessel's running expenses. All the libelant's dealings were directly with the charterer; the libelant had no dealings with the master, nor was he known to him; in the negotiations no reference was made to the vessel as a source of credit. Held, that no lien for the supplies was created on the vessel.

The Aeronaut was owned by Mrs. White, who resided in Jersey City. Her business was transacted by her husband in New York, which was the headquarters of the vessel. The steamer was chartered to the Newcomb, Rapid Transit Company, a New Jersey corporation, for $20 a day, payable in advance, to run between New York and South Norwalk, Conn. The office of the transportation co. was in New York. The charterers were owners *pro hac vice*, and were to pay all the vessel's running expenses. Supplies to the amount of $180.94, principally for the engineer's department, were furnished the vessel by the libelants, in New York, between October 15 and November 4, 1887. All the negotiations and orders for the supplies were made at the office of the charterers by the general manager of the company. The libelants had no dealings with the master, nor was he known to them. In the negotiations, no reference was made to the ship as a source of credit.

Brown, J.

The libelants made no inquiries as to whether the charterers owned or had chartered the Aeronaut. A year or two previous they had furnished supplies to her on Mr. White's orders, when she was running under his direction; but as it is not clear that the libelants had any recollection of these prior transactions at the time of their negotiations with the Rapid Transit Co. I shall not consider whether or not they were fairly put upon inquiry as to the relations of the company to the Aeronaut. Independently of this consideration, however, and treating the libelants as ignorant of the charter, the lien cannot be sustained; since the dealings were all directly with the charterers, the owners *pro hac vice*, in person; and in the same state where the supplies were furnished to the ship, and there is no evidence either of any intention the charterers' part to pledge the ship for these supplies, even if they had power to do so, or of any of theirs to lead the libelants to such a supposition. As the charterers had received possession of the vessel on the condition that they should pay for all supplies, they had no actual authority themselves to create a lien upon the ship for such supplies. In the absence of exceptional circumstances; and when, as here, the ship being so near her home port had in her actual business home, had no need of the supplies for any interests of her own, or of her general owners. This point was directly adjudicated in this circuit in the case of the Secret, 15 Fed. Rep. 480. The same principle was adjudged in the case of the Turgot, 11 Prob. Div. 21. In the case of the India, 16 Fed. Rep. 262, 21 Blatch., 268, the supplies were not ordered by the charterers in person, but by the agents of the ship, in a foreign port, and in a port of a different state from that of the charterer's residence and business; and the observations of the court in that case are to be taken in reference to the facts of the case. In foreign ports, supplies furnished by material men upon the order of the master, or of the ship's agents, without knowledge of any charter virtually forbidding any use of the ship's credit for such purposes and without means of knowing of any such charter are presumptively furnished on the credit of the ship. The general owner, in chartering the ship, takes the risk of such liens, because under the marine law material men in dealing with the master or ship's agent in a foreign port, and in the course of her voyage, are authorized to trust the ship, and are not bound to make inquiry, beyond the necessities of the ship. Both parties are presumed to be dealing on the basis of the credit of the ship. But upon personal dealings with the general owners or with charterers who are owners *pro hac vice*, for supplies to be furnished within the same port or state where the contract is made, the legal presumption is that the dealings are not with the ship, or upon her credit, but upon the ordinary personal responsibility of the owners, with whom supply men deal; and no lien is in such a case sustained, unless a credit of the ship is proved to be within the intention of both parties, as was specially found by the court in the cases of the James Guys 1 Ben. 112, 5 Blatch. 496, 9 Wall. 758, and the Kalorama, (10 Wall. 204.) This subject, and the previous authorities bearing upon it, were fully considered by this court in the case of the Wm. Cork, 12 Fed. Rep. 919, Stephenson v. the Francis (21 Fed. Rep. 715, 719 723,) and Neill v. The Francis (do. 921). The same principles have been affirmed in numerous later cases in other circuit and district courts. The Norman, 28 Fed. Rep. 283; the Mary Morgan, do., 196; the Cumberland, 30 do., 449; the Pirate, 32 do. 486; the Glenmont, 34 do. 402, 404; the Kingston, 23 do. 200.

The libelants' dealings in this case were all directly with the charterers in person. There is no legal presumption that aids the libelants in making out a maritime lie. They must rest upon the facts as they existed; and upon these facts, not only had the charterers, under the circumstances of this case, no authority to charge the ship for these supplies, but there is no evidence that they had the slightest intention of doing so. Nothing in the negotiations, or in the ordering of the supplies, points to the ship as any intended source of credit within the common intention, and the charterers could not have done so, without fraud on the general orders. In its facts, the case is almost precisely similar to those of the Metropolis, 8 Ben. 19 and the Mary Morgan, 28 Fed. Rep. 196; and as in those cases, the libel must be dismissed, but, under the circumstances, without costs.

October 11, 1888.

THE LIFE-SAVING SERVICE

From the report of Superintendent Kimball of the life saving service it appears that the number of life-saving stations in commission at the close of the year was 222.

With the extension of the service, the number of disasters falling within its scope has correspondingly increased. The success of its operations, however, has in nowise abated. The service has continued to improve its methods and appliances, and this year offers a record excelling any heretofore presented. More lives and property were involved in disasters than in any former year, while the loss of both is in proportion less.

There were during the year 411 disasters to documented vessels. On board these vessels there were 3,653 persons, of whom 3,641 were saved and 12 lost. The number of shipwrecked persons succored at the stations was 743, and they received 1,898 days relief in the aggregate. The value of property involved is estimated at $9,555,285; of this $7,776,405 were saved, and $1,778,880 lost. The number of vessels totally lost was 71. In addition to the forgoing there were 133 disasters to smaller craft, such as sailboats, row boats, etc., involving the lives of 297 persons, of whom 292 were saved and 5 lost. The property involved in these instances is estimated at $197,935, of which $190,255 were saved, and $7,680 lost.

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J. F. & C. N. Davis, of Waldoboro, Me., in writing the American Ship Windlass Co., say: "We had a very good launch and your windlass worked to a charm. We had only three times our length to run to the other side of the river and had to depend wholly on our anchors and your windlass to stop her. We dropped both anchors by the levers as soon as we cleared the ways and brought her up without any trouble, one man tending each lever. We have both chains in at one time and were down the river in thirty minutes. We expect to sail the last part of this week for Baltimore and return to Providence."

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PROPOSALS FOR CONSTRUCTION—U. S. Engineer Office, Cleveland, O., Nov. 14, 1888. Sealed proposals in duplicate, will be received at this office until 12 o'clock m., on Monday, the 17th day of December next, at which time they will be opened in the presence of bidders, for constructing 6 0 lineal feet, more or less, of the structure of east breakwater at Cleveland, Ohio. Preference will be given to materials and plant of bomestic production or manufacture, conditions of quality and price [import duties included] being equal. The attention of bidders is invited to acts of congress approved Feb 26. 1885, and Feb 23. 1887, vol. 24, page 414, statutes at large. All information can be obtained at this office. The United States reserves the right to reject any or all proposals. L. COOPER OVERMAN, Major of Engineers.

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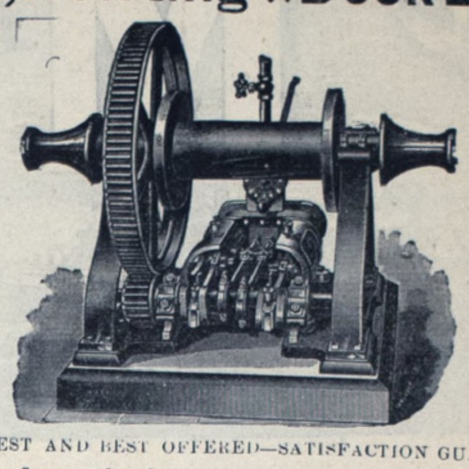

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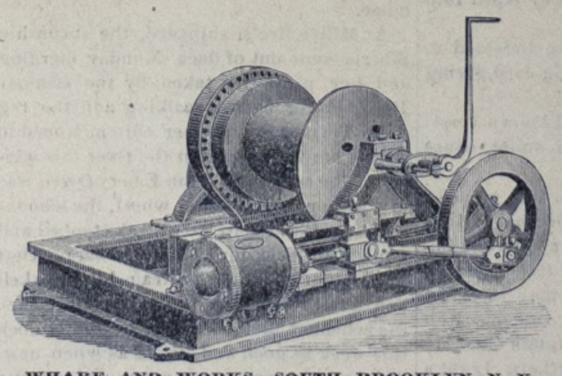

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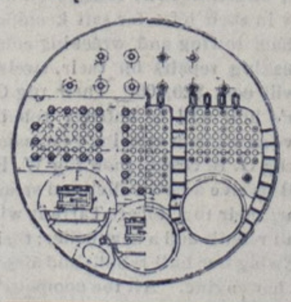

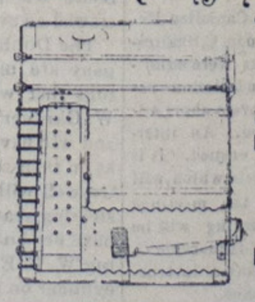

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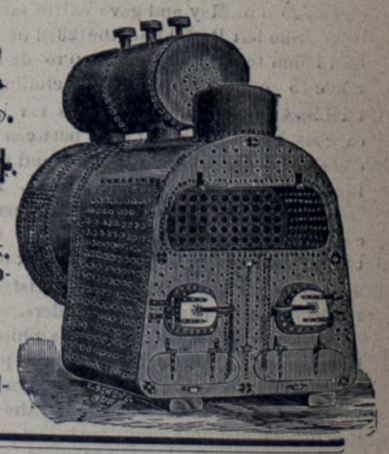

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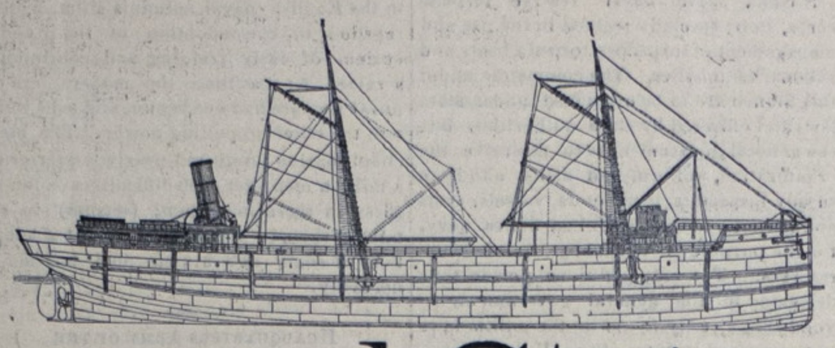

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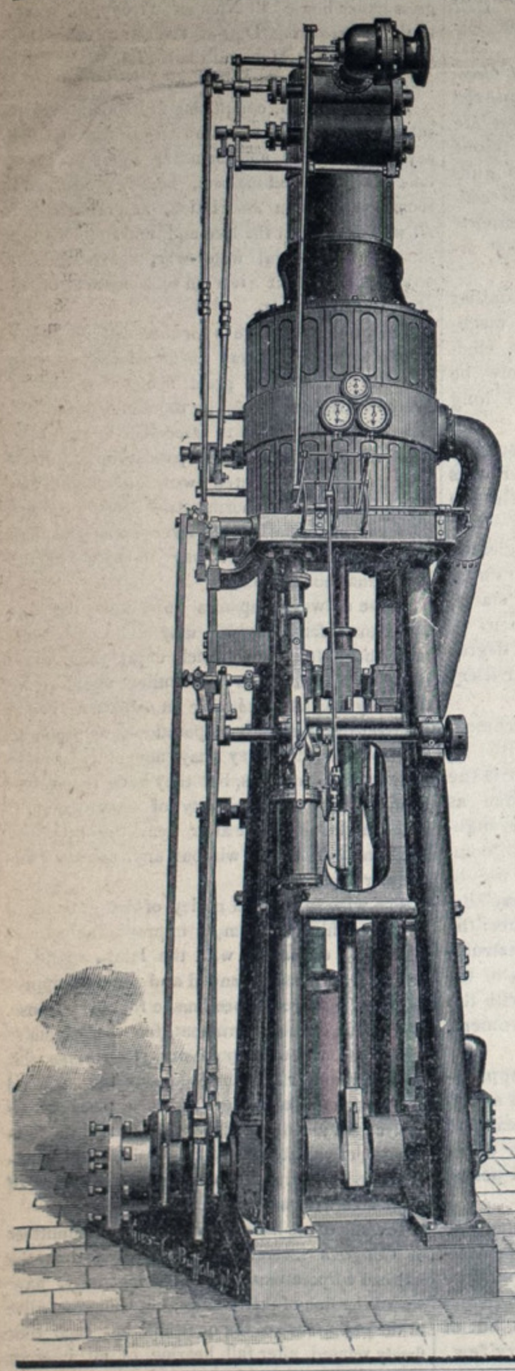

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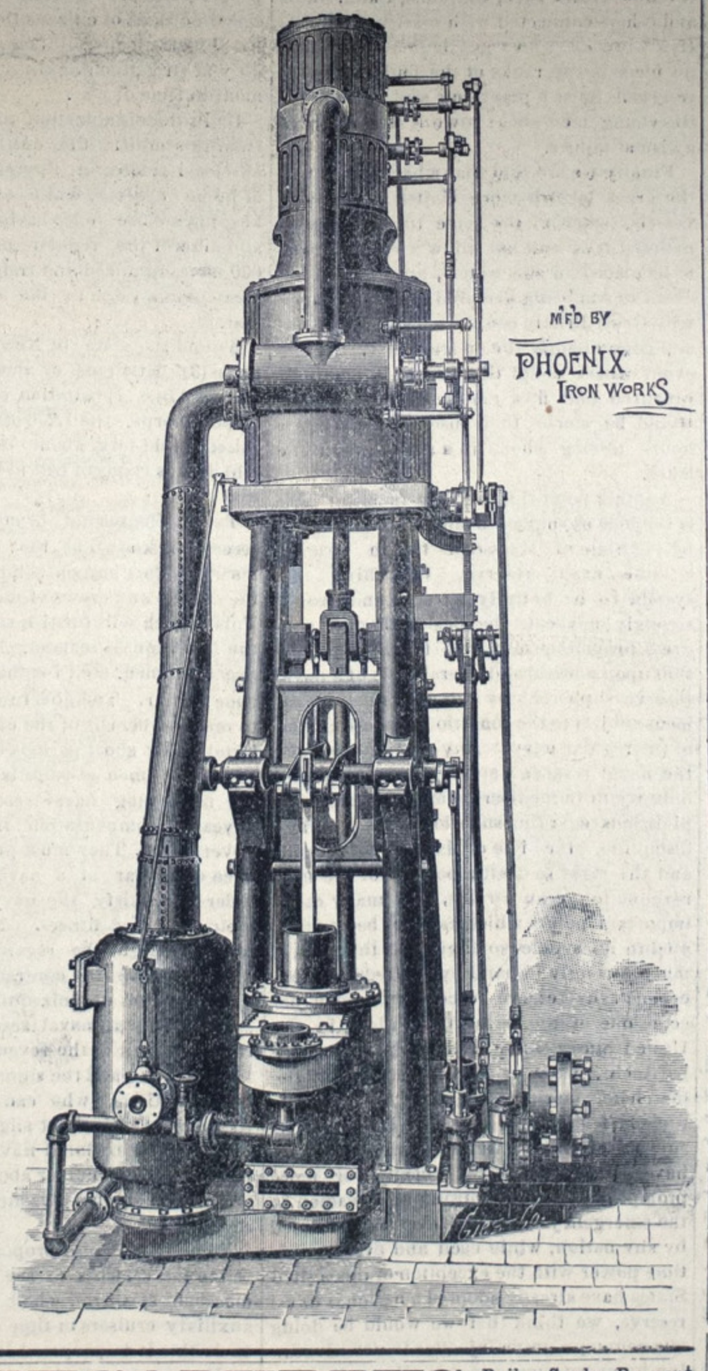

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MARINE RECORD—OFFICIAL PAPER.

NAVAL RESERVE.

In a recent issue of the Cleveland Leader daily an editorial appears unjustly criticizing and condemning the organization of a naval reserve. The writer seems to have grasped at the outlines of the mode of formation of a reserve force, yet his superficial knowledge of the subject only serves to lead him into committing his blundering notions to the gaze of many of the citizens of the United States.

That such an unreasonable and illogical article on a leading and important question of the day, should be published in the columns of so reputable and high standing a paper as the Cleveland Leader and Herald argues ill for the advancement, or furtherance of important national legislation, and the manner in which the question is discussed only shows the writers ignorance of the subject which he attempts to handle, certainly there is one redeeming feature about his style, for he manifests a praiseworthy thirst for information on a subject about which he clearly admits his incapacity to instruct his readers. We will endeavor to impart to him and to those whom he may have misled some necessary information.

In the first place the question is asked what would a naval reserve force amount to in Cleveland, for instance, supposing we were attacked by a man of war, the answer would naturally suggest itself to any well balanced mind in something like the following terms. The naval reserve forces detailed for duty stationed at this port should be sent as an opposing force to defeat and capture the enemy. While it is to be hoped that our shipbuilding talent could produce an ironclad vessel or vessels equally as strong, as well armed and equipped as those of our opponent, the rest would have to be left to the hands and hearts of men engaged in the patriotic struggle of defending their homes and county from the depredations of an invader. We believe that we speak advisedly, and from a practical point of view instead of which the paper mentioned above is made to say that it would much rather trust the fire boat to crush anything within crushing distance, than to send a load of well trained naval guards to certain death, or capture, an alternative, by the way, which it was their sworn duty to accept in the event of defeat as it is of all those who bear arms in any cause.

In the second place we are informed that the American men of war are manned with regularly enlisted men, and the "naval reserve would scarcely be of any active necessity to such vessels."

In answer to this we should say if the lives of men engaged in warfare could be insured to the end of the campaign, or if the American naval service had already attained to its highest standard and the annual enlistment was in excess of the requirements, even then a naval reserve would be in demand to protect our cities, and harbors in manning forts, laying mines, protecting the coast line, manipulating the electric lights, and furnishing the combatant force for torpedo boats, tugs, and auxiliary vessels of all descriptions that could be utilized for war purposes and quoting from an article previously published in the MARINE RECORD, the organization being local the officers and men would have an intimate knowledge of the capabilities of their immediate neighborhood for offence and defence consequently they would be much more valuable than a body of entirely strange seafaring men suddenly ordered to that service. In the comments on the naval report the system is said to be an economical one, in that it would place at the disposal of the government a strong, well trained naval force, second to none in the composition of its personnel and rendering a fleet of steamships built by private enterprise, and maintained in ordinary trade in time of peace immediately available for auxiliary naval service on the outbreak of a war, the cost to the government being but nominal, in view of the great national value of possessing such a reserve force of men and ships.

The men required for the above duty could not be drafted from the regular navy hence the object of the reserve, the members of which would be trained by qualified instructors and compelled to undergo, and get accustomed to the strict discipline of a war vessel hence the young men who, as the Leader says, have a fondness for such things, would soon find themselves brought down to a stern reality which would either make them "swallow the anchor" or turn their attention to hard practical lessons so as to hold their position in the rank and file of life savers, lighthouse keepers, boatmen, revenue service men, captains, mates, pilots and others connected with maritime affairs. In a word kid glove gentlemen would find no place in the ranks of the national naval reserve. So as a plaything and pastime for the young men about town it would prove a dismal failure.

Finally we are told that what we want on the great lakes is more United States war vessels, when at the same time the international law, will not allow a vessel of war to be placed on the waters, and only in the event of war being declared say for instance with Great Britain could we break the clause and consequently the entire treaty. In this event where could the drilled seamen be procured and fifty per cent of the militia would be worse than useless after a few hours tossing about in a sea way on the lakes.

Another point that we may mention here is the idea as suggested and partly adopted by the State of Massachusetts in forming a state naval reserve. We think this system to be entirely wrong, and would strongly advocate the desirability of congress providing measures for the organization upon a broad and liberal basis of a naval reserve supported by the general government subject to the conditions and discipline of the regular navy. Any attempt to make the naval reserve a state institution would only result in mediocrity, and ultimate complications regarding superior officers, drill and discipline, the time or limit of enlistment, and the right to draft a portion of the state revenue for ocean service, and many other important points which can not be enumerated in an article so limited as this, but if taken strongly in hand by the federal government the reserve force would soon become one of the finest institutions in the United States, these reflections are more pertinent, when it is considered that the merchant marine has always been the nursery from which the navy has drawn its supplies of men in times of war, and as we have stated before, no cheaper, or more prompt method of recruiting able seamen in the emergency of war has ever been devised by any nation, while each and every maritime power with the exception of the United States have already adopted a national naval reserve, we think that we would be doing our country a grave injustice in not advocating by every means in our power the formation of a state reserve if events now transpiring go to show that a national reserve can not possibly be obtained, we shall watch with interest the action taken by congress at its next session is relation to coast defense, and reserve forces.

Memorandum on proposed plan for Naval Reserves accompanying letter of Hon. W. C. Whitney, Secretary of the Navy, to the Committee on Naval Reserve of the New York Board of Trade and Transportation, dated Washington, D. C., Dec. 7, 1888.

The plan for establishing a system of naval reserves in this country embraces—

First, The enrollment of all the male population between the ages of eighteen and forty-five finding occupation upon the sea or navigable waters of the United States or in the industries immediately connected therewith, in a body which shall be known as the naval militia.

Second, To organize into commands such of the naval militia and others as may volunteer for duty in the naval reserves.

Two classes are to be organized under this branch—

First, The naval reserve artillery, to be specially trained in naval gunnery.

Second, The naval reserve torpedo corps, to be specially trained in the use and management of torpedoes, torpedo boats and sub-marine missiles. The commands under this branch are to be organized under state laws and officered by state authorities, but the general government is to prescribe the organization, uniform and drills, and is to supply inspectors, instructors, vessels, arms and material from the United States navy, for the purpose of efficiently training the reserves. The only additional power thus delegated to the general government, beyond that already found in the militia laws in the revised statutes of the United States, is that of calling out the naval reserves in time of peace for training. It is estimated that some 15,000 men might be thus organized and trained in different parts of the country. The quota of New York, for instance, would be about 2,500 men; for Massachusetts about 1,600; Maryland about 1,100; Michigan about 900; California about 900.

In order to procure the proper training for these men for naval purposes, it is proposed that they shall be called out by the President once each year to undergo drill and training for as long a period as may be found practicable, probably a fortnight.

When the naval reserves are called out for this purpose they will be paid and maintained by the general government. During the remainder of the year they will be maintained by the states.

The controlling ideas of this proposed enrollment of a naval militia and organization of naval reserves are—

A. To emphasize the fact that the navy is an important branch of the public service and that its efficiency for coast defense is a pressing public need, and to identify the people with its interests by assigning to certain classes of citizens the obligation of naval instead of military service, and the duty of strengthening the naval establishment in time of war.

B. In the organization of reserve forces from this militia, the cultivation of state and local pride and interest, and the spirit of home defense, while at the same time keeping a close touch with the sentiment and aims of the regular naval service, 15,000 men organized and trained would be of incalculable value in the event of sudden war.

Should the state of New York organize three (3) battalions of naval reserve artillery and one (1) battalion of naval reserve torpedo corps, the 1,276 officers and men so raised would form about one-half the force which it is thought can in time be raised in that state.

Third, The second branch of the naval reserve is known as the navigating naval reserve. This branch will be recruited from the officers and crews of merchant steamers. This branch will furnish some officers, and the additional seamen, helmsmen, engineers, firemen, etc., for the naval service in time of war. The government will expect to reap the benefit of the experience already acquired by short periods of annual training. The men so voluntarily enlisted in the navigating naval reserve will receive a yearly compensation from the general government. They must present themselves once each year at a naval rendezvous in order to satisfy the navy department of their continued fitness. Navigating naval reserves might be regarded as a national naval reserve in contradistinction to the naval reserves organized under the states.

The national naval reserve may also include the men of the revenue marine, lighthouse service and the signal service men on coast stations, who can readily become thoroughly trained at slight additional expense. The national naval reserves would then probably number about 6,000.

So much for the personnae of the naval reserve.

Fourth, It is also proposed to secure and retain the services of the best and fastest merchant steamers, which may be fitted as auxiliary cruisers in time of war. In order to do this it is proposed that government shall pay an annual fee to such vessels as need the requirements of the navy department for this purpose, and which have been examined and accepted by a board of naval officers. This fee is not in the nature of a subsidy, but should be regarded as a retaining fee. The number of vessels which will meet the requirements would be small and the annual expense would not be great. These vessels would be required to be fitted in such a manner as to be ready to receive on board their guns and stores and to take the sea as cruisers in a very short time.

It will be seen therefore that the scheme is comprehensive and provides a considerable number of men, trained for naval warfare, to man the increased fleet which must be commissioned at the outbreak of war; and it also provides means for at once utilizing the best merchant steamers as additional cruisers.

At present the United States has not one single man in reserve for manning its fleet in case it should be desired to do so in emergency.

It is a popular error that the merchant marine, if large enough, can be relied upon for manning the ships of the fleet and for a naval reserve. In 1852 the agitation began in the English naval administration, which resulted in the adoption of the present system of early training and continuous service. At that time the modern era of naval warfare had not begun and sails were still the chief propelling power. The merchant marine numbered nearly a quarter of a million men, yet such difficulty was found (first) in recruiting men; (second) in retaining them in the service, that the adoption of some new system had become a necessity.

HEADQUARTERS ARMY OF THE UNITED STATES,
WASHINGTON, D. C., Dec. 8, 1888.

Aaron Vanderbilt, Esquire, Chairman of Committee of New York Board of Trade and Transportation, New York City, N. Y.

Dear Sir—Your letter of 30th ultimo, requesting my views touching the necessity and feasibility of establishing for the State of New York, a naval militia as comprehended in the proposed United States naval reserve, has been received.

In reply, as I understand the subject of the draft of a bill to be submitted for legislative action in the various states is now under consideration in the Navy Department. I feel a hesitancy about expressing any opinion as to the details of the manner in which the general proposition could best be incorporated in a state law.

But in so far as your request relates to an expression of my opinion upon the merits of the proposition itself, it gives me great pleasure to make it known.

I can best illustrate that opinion by a comparisen between the present status of the available personnel for a sea army in time of war, and that of the available personnel under similar circumstances for an important part of our land army, viz., the seacoast artillery. There is good reason to hope that within a few years all of our important seaports will be defended by the most improved modern ordnance. When the new guns are in position the harbor of New York alone will require for the proper service of its guns in war 13,398 artillery men, and it is estimated that for the defense of all our seaports against a foreign enemy, at least 85,000 artillery troops would be necessary.

These men, to be efficient, must be familiar with the management of complicated mechanism and apparatus, steam machinery, electrical plants, &c. They must therefore be carefully selected, and subjected to long training.

To meet the enormous demand resulting from a foreign war, we now have under arms a total artillery force of about one-fifth the number required for the defense of New York harbor alone. To meet the deficiency, we can only hope, by the judicious training of a portion of the militia of seaboard states, to have a sufficient number to draw upon.

To accomplish this in even a small degree will require all the energies of our artillery officers for a long time to come.

But the problem which our government will have to meet is not so serious with its land as with its sea forces. One factor is the same in both cases; the modern seaman as well as the modern soldier must be thoroughly trained in all the details of a most complicated mechanism, upon the proper use of which the defense of his country may depend. But there is this great difference: the army has at least a great, even if uninstructed force, upon which the militia laws of the various states, made in accordance with the enrollment laws of the general government, enable it to draw.

The importance of extending the application of the enrollment laws, by which a certain quota of men in each of our seaboard states can be set apart for the service of the fleets and of training them in time of peace, cannot be too strongly emphasized.

At this moment were the government to become suddenly in possession of a respectable fleet of modern ironclads, it would be impossible to fit them out for war service at sea. There may be plenty of *seamen*, but of trained men-of-warsmen there are very few. To remedy this defect I understand to be the object of the proposed federal law enrolling a national naval reserve.

Under a government like ours when compulsory enrollment will never be permitted, I see only two ways of accomplishing the object in view. The first is to enroll all native born or naturalized able-bodied seamen employed in our merchant marine. It is not probable that this class can be diverted from its ordinary vocation for training in time of peace. But even without such training it would furnish a large number of mechanics, firemen, engineers, quarter-masters, helmsmen and petty officers.

The second is to enroll a volunteer naval militia in the various states from their seacoast population. These should be provided for by the state laws precisely as is now done for the state guards.

They should be exempted from jury duty, they should be uniformed, they should receive the pay of their grade while on duty under instruction, and they should, at least once a year, be required to serve on board the national squadrons of evolution, which for this purpose should be ordered to the most convenient ports in the states having such naval militia.

I do not attempt to enter into the details of the general scheme for carrying these ideas into practical operation. What I have written has been with a view of making known my hearty sympathy with the efforts of the far sighted and patriotic citizens of New York in solving the most important part of the problem of our national defense.

Very truly yours,
(Signed) J. M. SCHOFIELD,
Major General.

ARTIFICIAL OBSTRUCTIONS TO NAVIGATION.

The scheme of bridging the Detroit river in the interests of the railway companies is about to be brought forward again, and our legislators will be petitioned by the far-reaching and mammoth octopus (the railway corporations) of the west to destroy a large and important natural waterway for the financial benefit of a few bloated millionaires. Already the bill has been before Congress under various guises, and met with the ignominious defeat to which it is so justly entitled. With the undermentioned alternatives there is no sensible reason why an artificial obstruction should be placed in the direct path of a large and increasing commeree. A glance at our cousins across the water would go to show that the shipping interests frequenting the large seaport of Liverpool on the river Mersey were not even called upon to protest on such a commerce-killing scheme, for as soon as the traffic called for increased facilities, etc., a commodious tunnel was made which is now giving entire satisfaction to all interests.

To the honorable senators and representatives of the congress of the United States:

The Cleveland Vessel Owners' Association represents that application has been made to congress under house bill Number 11,679, for leave to throw across the Detroit river at or near Detroit, a so-called high railroad bridge with two piers in the river.

This association, comprising in its membership substantially all the vessel owners of this and the adjoining districts, and including many practical lake navigators and masters, hereby protests and remonstrate as an association, and on behalf of all who depend on the free and untrammeled use of this great natural water-way, against the obstruction of Detroit river in such manner or to any extent whatever.

The proposed bridge is for the exclusive benefit of a very few railway corporations, whereas the river is used by a great fleet of vessels of every description, owned by thousands of our citizens, and from March to December in each year these vessels are continually passing up and down over the river, freighted with the magnificient commerce of the northwest. More tonnage passes through the Detroit river each year than through any other water way in the world, the Suez canal not excepted.

These railway companies now cross the river by means of ferries, which may be increased almost indefinitely, and which enjoy the free use of the river in common with other vessels. No necessity exists for granting an exclusive use of the river to the railway corporations, as proposed by this bill, since they may not only increase their ferriage facilities, but they have themselves demonstrated the feasibility of constructing at tunnel under the river at or near the proposed location of the bridge without any unusual difficulty or expense.

The wise and liberal policy of the government has up to this time been to improve the natural waterways connected with the lakes. Millions have already been expended and generous appropriations have yearly been made for this purpose. This bill asks the government, for the exclusive benefit of a few corporations, to reverse this policy by authorizing and legalizing the artificial obstruction of the waterway at a place where obstruction means inevitable danger and the destruction of valuable property, besides the hindrance and interruption of the great stream of commerce with which this river teems.

Investigations have been made by committees of Congress several times, and each time the railroad corporations, with fresh ingenuity, have varied the line of their attack; but Congress, alive to the importance of the question, has each time firmly refused, after full hearing of all interests involved, to permit the river to be obstructed by a bridge or by piers.

The merits of the question change only in one respect—the ever-increasing volume and importance of the commerce through this river—the ever-increasing objection therefore to the obstruction of the river.

In these former hearings before committees it has been fully shown that for the safe navigation of the river by tows particularly at night and in

thick or stormy weather, the entire width of the river is requlred. With the increasing size and number of vessels, more tows and vessels to meet and pass each other in this narrow water, the full use of the river becomes more and more essential from year to year: so that piers placed in the navigable river, that is, outside the line of ten feet depth of water, must be an obstruction and no bridge with such piers and no bridge low enough to interfere with the passage of vessels should ever be permitted.

The vessels have no alternative; they must use this channel. The railroad corporations, in asking to obstruct so important and neeessary a channel, pass by two other all sufficient means of attaining their ends—first, an increase of their ferriage facilities, second, the construction of the tunnel; both entirely feasible and neither trenching on the rights or necessities of any one. Even if it be said that either of these should entail some measure of inconvenience to the companies, this would seem a fitting time and place for corporate privileges to yield so much to the vested rights of the public in the obstructed use of this great natural waterway.

A VALUABLE CHART.

COMMERCE AND NAVIGATION. DESIGNED TO SHOW THE RISE AND FALL OF THE MARINE IN FOREIGN TRADE.

This chart, nearly five feet square, is a delineation by curves of all the facts and figures, accompanied by notes of occurrences, events and incidents in history, essential to the intelligent study of the shipping question. Its author has made this subject a special study for many years, with the advantage of a thorough, practical knowledge of shipbuilding and navigation, and of all business connections with vessels, and now the manager of the Inland Lloyd's register at Buffalo. This chart should be published and distributed at Washington, where statesmen may be found who greatly need its information.

CURVES ON BASE LINE NO. 4.

The upper curve shows the amount of tonnage in the foreign trade, each year, from the beginning of the government, in 1789. Near it is noted the events and circumstances which caused or influenced its rise and fall. Similar notations accompany all the curves, and as many, if not most of them have risen or fell through the operations of the same agencies. It is necessary in studying the changes to glance up and down the chart to see all that happened in the same year. The curves can all be compared with one another, and what has been hurtful or beneficial to shipping, is readily detected. This first curve shows that we had about the same amount of tonnage in the foreign trade in 1810, as in 1846, or in 1887.

The second curve is that of tonnage in the coasting or domestic trade, which includes the lakes and rivers. This curve is of a protected business, as the first is of an unprotected trade since 1828. The one has only our railroad competition, the other has the more deadly antagonism of foreign shipping, much of it sustained by subsidies and bounties, and adverse and unfair underwriting. Naturally, the unprotected trade is dying out, while the protected grows, and sometimes flourishes.

The third curve shows the number of vessels built for foreign trade. Once these were hundreds annually. Now the industry is dead, because shipowning is on a free trade basis.

Curve four shows the amount of tonnage annually sold abroad, also the movement during the war and of late years to sell freely and get out of shipowning for the want of protection. This want has given us the cheapest sailing ships in the world. Before long they will all be closed out—reason why? governmental indifference.

CURVES ON BASE LINE NO. 3.

The first shows the American per centage of the tonnage entering our ports from abroad. It is easily noted how quickly foreign shipping was run out of our trade, and how small a share of it was held by foreign nations during the period of full, and even partial protection, down to 1830; and how controlling has been the downward tendency of the curve ever since that year.

The second curve shows the American tonnage yearly from abroad.

The third line is one of the most instructive on the chart, showing as it does, the per capita tonnage in the foreign trade since we have been a nation Our ocean transportation grew up like a giant, because it was protected. It has fallen away, and become dwarfed, because its protection was stripped off. Our naval repute went up like a rocket, but has come down like a stick, because our government has refused to burn powder to sustain its flight. In 1789, the portion of tonnage per capita in the foreign trade was 3.64 cubic feet; (a ton is 100 cubic feet), in 1810 it was 13,43. in 1887 it is 1.63. Different periods average as follows;

For 26 years of protection..... 10.98 ft.
For 13 years, stripping off protection, 6.41 ft.
For 33 years of free trade before the war..... 5.71 ft.
For 27 years of free trade since the war..... 3.34 ft.

So history contradicts theory, and proves that progress and free trade do not agree in the shipping business. Thus, also, it compares the petty patriotism and wretched rules of the present time, with the glorious love of country and sound statesmanship of our early days.

CURVES ON BASE LINE NO. 2.

Curves one and two show the per centage of American transportation in our foreign trade, according to the values of imports and exports, separately. Beginning under protection we soon attained the carriage of ninety per cent and upwards of our foreign commerce. Under free trade and British confederate cruising, in the course of sixty years that great share of traffic has almost all been lost. What was "our" commerce has become their commerce, as to ships, merchants, underwriters and all. About half of this loss was due to the war.

CURVES HN BASE LINE NO. I.

Curve one shows the value of imports, and two of exports, by sea, annually. On an average, the imports have much exceeded the exports of merchandize and specie. The adverse balances of trade have been settled from the earnings of our ships. When we come to have no ships at all, adverse balances will have to be paid in specie.

Curve three shows the population, and growth of the United States, and affords a standard of comparison for the commerce and navigation of our country, as these great interests should be developed.

Curve four of this base line shows the values of imports and exports taken together, in other words, our per capita commerce and navigation abroad. This curve discloses very instructive facts, which, with other information on the chart, should modify the accepted theory that a high tariff unduly restricts trade abroad. The two highest averages for four consecutive years, each, per capita, were as follows:

Under Jefferson, 1804 to 1807 inclusive $33,33. Under Hayes Garfield, 1880 to 1883 inclusive, $30,65.

In the first case the tariff was low, and in the latter high. The average of 23 years of "war tariff" is $27 21. The average of five years of very low tariff just before the war was $22.62. During the term of President Polk it was $13.82. And for the term of John Quincy Adams, $13.08. The lesson from this chart is, that full employment and good wages—well rewarded industry and prosperity—increase foreign commerce immensely more than all other influences.

Curve five projected above and below this base shows the excess, or balance of specie movement. For the want of sufficient shipping of our own in the foreign trade, our commerce is not only falling off in the last few years, but specie exports are becoming too large for continued good times. Over $6,000,000 exported last week.

CURVES ON BASE LINE NO. 0.

The last curves on the chart are those of the custom-tariff percentages. During the last year the rate is lower than for the year 1887, by one per cent on the total importations and nearly two perceut on dutiable list, o

and of home suppply.

IN CONCLUSION.

At the foot of the chart an illustration is given by stripes in colors of the past course of the American ship, and foreign mariners, with respect to protection, reciprocity and free trade. On a broad belt from left to right, the part in blue at the left shows the period when our marine was built up by protection. Next to this the green color covers the time when the protective policy was undergoing a change to reciprocity and free trade. Following this the yellow color shows the beginning and duration of decline and decay in consequence of our folly. Small stripes of blue intruding upon the space of the yellow, before and after the war for the union, indicates the feeble efforts made to help our owners to run ocean mail steamers in competition with the subsidized lines of foreign nations, by trials of the British subsidizing system.

Below the American belt on the right, are stripes of different colors for various nations, illustrating how all but our own have practically abandoned free trade principles in the running of their steam shipping, and resorted to protective devices of all sorts, all of them supporting, at least their mail lines, by the expenditure of national treasure. At the left is drawn a hand, with its fore finger pointing to these nationality stripes, and behind the hand are these words:

"EVASIONS AND INFRACTIONS OF RECIPROCITY PRINCIPLES IN ACTS AND TREATIES INTENDED TO SECURE EQUALITY AND FREEDOM FOR IETERNATIONAL COMMERCE AND NAVIGATION, AND PRACTICAL RETURN TO GOVERNMENTAL PROTECTION OF THE CHIEF EUROPEAN NATIONS, LEAVING THR UNITED STATES THE ILL STARRED VICTIM OF MISTAKEN LIBERALITY AND FAIRNESS."

THE New York Belting & Packing Co., the oldest and largest manufacturers of rubber belting, packing and hose in the country, continually find an increasing business and have recently opened a branch house in San Francisco, Cal., which will be under the control of Messrs. Arnett & Rivers and located at 17 and 19 Main street, that city.

WE notice with much satisfaction the launching of a new ship from Hall's shipbuilding yard on Puget Sound.

SAND BEACH HARBOR OF REFUGE.

CLASSIFIED TABLE OF BOATS ENTERING THE HARBOR OF REFUGE OF SAND BEACH ON LAKE HURON DURING THE SEASON OF 1888.

MONTHS.	TONNAGE.			TOTAL TONNAGE.	NUMBER.			
	Steam.	Sail.	Tow.		Steam.	Sail.	Tow.	Total No.
April	4133.03	53.64	3308.18	7494.85	12	1	11	24
May	15069.51	1678.89	8457.21	25200.61	56	32	26	114
June	11138.81	2494.98	9231.54	22865.33	33	43	29	105
July	10927.35	3288.41	5965.62	20181.38	40	54	18	112
August	24012.90	7392.15	24864.33	56269.38	79	92	75	246
September	41434.22	7666.64	29707.65	78808.51	122	66	86	274
October	79132.48	11026.59	67458.91	157617.98	173	69	170	412
November	85025.52	5823.74	52882.15	143731.41	152	42	130	324
December	1043.17	336.00	315.15	1694.32	4	7	2	13
	271916.99	39756.04	202190.74	513863.77	671	406	547	1624

Tonnage of single steamers, 100,880.83; Steamers with 1 in tow, 86, 41,593.66; Steamers with 2 in tow, 66, 52,174.74; Steamers with 3 in tow, 56, 58,779.15; Steamers with 4 in tow, 33, 40,003.70: Steamers with 5 in tow, 5, 8,009.13; Steamers with 6 in tow, 1, 1,630.36.

Five Dredges, 11 Dump Scows, 1 Lighter, 4 Pontoons and 7 Rafts, in addition to the documented craft have sheltered here.

COMPARATIVE STATEMENT.

1886 ..... 1304 1888 1624
1887 1440

The above statement would seem to refute an article in the MARINE RECORD of November 29 to the effect that sea faring men would run to the river rather than enter Sand Beach harbor, unless absolutely compelled to. The entrance to the harbor is 690 feet or nearly one eighth of a mile wide, and ample depth of water for any fresh water craft, and it would seem that the seafaring man even if he were blind of an eye, yet he could not fail to enter therein. Steam boat and vessel captains who have been in this harbor once know that the custodian is an able, efficient, practical navigator who knows his business and attends to it, and also makes others attend to theirs to the extent of making them move up and make room for others who may want to avail themselves of a harbor. The propeller Lowell had an experience last October that perhaps will not be repeated by any boat under the same circumstances, viz., a sudden shift of wind amounting to a hurricane, at the moment of entering the harbor, yet, had the Lowell been obliged to run to the river, with six barges the chances are that the loss of life and property would have been much greater.

The propeller Escanaba came into the harbor in November, 1883, badly iced up and her cargo of corn shifted, and it is the universal verdict of all who saw her, and those who were on board that she would not have reached the river. That is only one case, but others might be quoted in support of Sand Beach harbor as a port of safety. T.

FORE AND AFT.

The Dominion of Canada in 1876 employed 20,120,000 tons of shipping and in 1887, there were employed 31,200,000 tons.

The steambarge Helena is reported to have beaten the fast steamer Jewette, on her last round trip between Buffalo and Chicago, passing her in a Lake Erie storm.

The extent of the Alaska fishing banks for cod is estimated as four times the area of those of Newfoundland. The salmon and herring fisheries of Alaska are also of great magnitude.

The transhipment of grain from western ports for Montreal has ceased with the closing of the Welland canal. The customs authorities announce that 3,610,621 bushels of grain were handled during the past season. This is the smallest shipment for years.

Sharks are reported to have become uncommonly numerous on the shores of the Mediterranean, to the great annoyance of the dwellers by the sea. A few years since the shark was comparatively unknown there, but they have discovered that the Suez canal is an easy route from their Indian ocean home to the pleasant waters of the Mediterranean. They pass through the canal in great numbers.—Cincinnati Commercial Gazette.

There is much talk and some boasting about the five masted center board schooner, Governor Ames, just launched at Waldeboro, Me., but the claim that she is the largest schooner in the drow would not hold on actual measurement against the lake schooner Golden Age. The Ames is 260 feet over all, 50 feet beam, and 21 feet hold, and measures 1,689 net tons; while the Age is 278 feet over all, 38 feet 8 inches, beam and 20 feet hold and measures 1,762 tons net. The immense beam and greater depth of the ocean vessel show that she does not expect to squeeze through bridges or navigate shallow waters.

Apropos of the marine insurance discussion a story is told of the late Jay Pettibone, who was considerably interested in the canal trade. He had loaded some boats with grain and one of them had sunk on the passage down. Instead of turning the cargo over to the insurance people he raised the boat himself and took care of the damaged grain. Later on he applied to his insurance agent for payment of damages, and of course he was told that he violated his contract and there were no damages. After that I always read the fine print in my policies, he used to say, in referring to the matter, which, by the way is something that very few policy-holders ever do.

"What is the most money ever made by a tug in one trip?" was asked of an old tug man in South street. The very largest money ever obtained was when two tugs picked up a derelict off Sandy Hook. She was in good condition, but had been abandoned by her crew, who were panic striken. She was drifting ashore, and the courts allowed a salvage of $28,000 for the two or $14,000 for a day's work each. But that wasn't a towing job. The biggest price ever paid by a ship for towing at this port, so far as I know, was when a ship captain had beat his way up to the lightship after a long winter voyage from Manila Reaching this point, with the harbor before him, the northwest wind became a gale he could not face, and he saw Staten Island fade, and began to think he had Bermuda hard aboard. He couldn't stand that prospect, and was compelled to pay $1,500 by a heartless tug captain of about my size and disposition. That is a sober fact. You will hear tug men tell stories of larger sums, but then those men were intended by nature for fishermen.—New York Sun.

WE find shipping men along our river fronts, who are using hoisting engines on wharves in loading and unloading their vessels particularly those freighted with coal, iron and other heavy material, speak very highly of the single and double drum hoisting engines, with boiler attached, manufactured by the Lingerwood Manufacturing Co., N. Y.

LAKE CARRIERS' ASSOCIATION

TO CONSIDER AND TAKE ACTION UPON ALL GENERAL QUESTIONS RELATING TO THE NAVIGATION AND CARRYING BUSINESS OF THE GREAT LAKES AND THE WATERS TRIBUTARY THERETO, WITH THE INTENT TO IMPROVE THE CHARACTER OF THE SERVICE RENDERED TO THE PUBLIC, TO PROTECT THE COMMON INTEREST OF LAKE CARRIERS, AND PROMOTE THEIR GENERAL WELFARE.

BOARD OF MANAGERS, 1888.

THOMAS MARTIN, - - - - - Oswego, N. Y.
JAMES ASH, - - - - - - Buffalo, N. Y.
W. BULLARD, - - - - - - Buffalo, N. Y.
S. D. CALDWELL, *President* - - Buffalo, N. Y.
E. T. EVANS, - - - Buffalo, N. Y.
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DAVID VANCE, - - - - - Milwaukee, W
ALEX MCDOUGALL, - - - - Duluth, Minn.
HARRY MURPHY, *Secretary*, - - Buffalo, N. Y.
JAS. CAREY EVANS, *Treasurer*, - Buffalo, N. Y.

MARINE RECORD—OFFICIAL PAPER.

LONG SPAN BRIDGE.

A meeting of the board of managers of the Lake Carrier's association was held in the committee rooms of the Merchants' exchange, Buffalo, on Saturday, December 16th, President Caldwell in the chair.

The new scheme for bridging the Detroit river with a high railroad bridge was first discussed, but action upon it was deferred until fuller information could be had as to the exact location of the proposed bridge. Following is the full text of the bill introduced in the house of representatives on Monday last by Mr. Chipman, to authorize the construction of the bridge.

Be it enacted by the senate and house of representatives of the United States of America, in congress assembled, that it shall be lawful for the Long Span Bridge company, a corporation existing under the laws of the state of Michigan its successors and assigns, whenever such authority as may be necessary shall have been obtained from the Dominion of Canada for the like purpose, to locate, build, maintain and use a high level bridge, to be in the clear above the highest masts, across the Detroit river, at or near the city of Detroit, in the state of Michigan for the use and connection of railroads on either side of said river, and for other purposes. Provided, that said bridge shall be built with only two piers in the river, the location of which, as well as the height of the superstructure above the water, shall be determined as hereinafter provided. And provided further, that no obstruction to navigation in the form of false work of staging shall be placed between said river piers during and for the erection of the bridge superstructure.

Section 2. That before the construction of said bridge shall be begun, the said company, its successors or assigns, shall submit to the secretary of war for his examination, a design and drawings of the proposed bridge and piers, and a map of its location showing the shore lines for the space of at least one-half mile above and one half mile below the proposed location, and also any existing piers, docks or basins.

This map shall be accompanied by a profile representing the bottom of the river on the center line of said bridge, and by any such other information as the secretary of war may reasonably require for a full and satisfactory understanding of the subject.

Said map and drawings shall be referred by him to a board of United States engineers for examination and report, which board shall personally examine the site of the proposed bridge, and shall hold a public session in Detroit, Michigan, to hear all objections thereto; of which session ten days' previous notice by publication in two newspapers of Detroit shall be given for the benefit of all interested parties.

The secretary of war is hereby authorized, on the recommendation of said board, to order such changes in the bridge or its piers as may be necessary and reasonable for the security of navigation.

The construction of said bridge shall be commenced within one year, and shall be completed within six years after said approval by the secretary of war, and it shall be deemed a lawful structure.

Section 3. That all railroad companies desiring to use the said bridge shall have and be entitled to equal rights and privileges in the passage over the same upon reasonable terms and compensation, to be paid to the owners of said bridge.

Section 4. That any bridge constructed under this act shall be recognized and known as a post road for the transportation of the mails of the United States, for which no higher rate shall be made than the rate per mile paid for the transportation of the United States mails over the railroads leading to said bridge.

Section 5. That the owners of such bridge shall maintain thereon, at their own expense, from sunset to sunrise, such lights or signals as the United States lighthouse board shall prescribe.

Section 6. That the right to alter or amend this act is hereby expressly reserved.

The next question that came up was that of selecting and recommending to the president of the United States a proper party to represent the lake district at the international marine conference, to be held at Washington in April, 1889. The board of managers were of the opinion that S. D. Caldwell would be the most competent man to represent the lake marine, and urged that gentleman to consent to the use of his name for the position. He, however, positively declined to consider the matter, for the reason that his business engagements would not permit of his attendance at the conference. The name of Robert Rae of Chicago was then presented, and his endorsement for the position was unanimously agreed to.

The proposed lighting of the St. Mary's river so that it could be run by night, as well as by day, was then taken up. A sketch of the river was produced, upon which were marked the lights that it would be necessary to establish to order to carry out the proposition. Much valuable time has been lost in past seasons by vessels being compelled to remain over night either at Sault ste. Marie or Detour, and the board, believing that the project was practicable, decided to endeavor to have provision made during the present session of congress for the necessary lights.

[*Around the Lakes Continued from 1st Page*

BUFFALO, N. Y.

Captain Thomas Maytham has contracted with O'Grady & Maher to build him a second tug to replace the tug Moore, lately sold to parties in Cleveland. She will be a duplicate of the one bargained for to replace the foundered tug Dorr. The machinery will be built by Sutton, and the boiler by Riter. Both tugs are to be out for the opening of navigation.

Business is not entirely suspended in port yet. Maytham's tug line has engaged to tow the propeller Isaac May and her two consort Muskoka and Waubaushene, to Port Colborne. They are laid up at Tonawanda, and will have to be taken over one at a time as the weather favors.

The lake carriers association have endorsed the resolution recommending Mr. Robert Rae, admiralty lawyer, of Chicago, as a representative to the international marine conference to be held in Washington next April.

DETROIT, MICH.

The Detroit Yacht Club held a special meeting, and elected eleven new members. The club has taken permanent quarters at 184 Randolph street, and will fit up elegant and commodious club rooms. The formal opening will occur Friday evening. This flourishing club is preparing for a lively campaign next summer, and will set a fast pace. Members of the clup will build yachts in all the classes, from second to sixth, and the racing next summer will be unprecedented. Among the new craft will be two second class yachts, and the rivalry in that class will be intense.

A SHIPBUILDING feat never before approached was lately performed by the Fairfield company on the Clyde. A 5,000 ton steamer for the German line to New York was launched which had been built in less than four months.

TUGS FOR SALE.

PATHFINDER: Length 78 feet, beam 16 feet, depth 8½ feet, draws 9 feet. Rebuilt from the keel up in 1884. Is an extra fine looking boat and an excellent sea boat. Boiler 7 feet by 13 feet, built of ½ inch steel in 1887, and allowed 107 pounds steam. Engine is an extra smart 20 by 20, in perfect condition. Has copper steam and exhaust pipes. Engine was overhauled and lined up last winter. She is an extra good towing boat, a fast runner and is very economical, in fact she is a complete tug boat.

W. H. DOANE, Length 50 feet, beam 12 feet, draws 7 feet 8 inches Built in 1881, Boiler and hull rebuilt last winter. Boiler 4½ by 9 feet, allowed 110 pounds steam. Engine 14 by 14. Received new crank shaft and wheel and was over-hauled and lined up in October. Is a very handy little boat. Both boats are bargains. Reason for selling; we want to get out of the tug business and buy an interest in a steambarge. For prices and further information, address,

HARDY BROS. Toledo, Ohio.

FOR SALE.

HARBOR TUG for sale, cheap. This tug is in good repair and will be sold cheap, for cash, that is, $4,600. Engine 18x20, boiler 5 feet 6 inches by 11 feet, and allowed 100 pounds of steam. For further particulars inquire at 113 Franklyn avenue, Cleveland, O. CAPT. E. DAHLKE.

THE FIREMAN AT SEA.

Among firemen there are, as ight be expected, many varieties. There is usually a fresh supply every voyage, and their combinations are as varied as those of the kaleidoscope. Though selected of one apparent uniform quality, no sooner is the vessel fairly on her voyage than one will develop an unruly disposition, not only making all the others uncomfortable, but sometimes changing the character of the whole group, and making them difficult to manage. Then another fallsill, and it turns out that he was ill when he went aboard, and, being unfit for work on shore, thought that he would make sure of his food and lodgings and medical attendance for a few weeks, or months, with some pay at the end, taking his chance of whatever disagreeableness might arise, in the knowledge that these could not be worse than if he were starving ashore. As firemen are not always of the most robust appearance, it would puzzle the best medical man to judge, when engaging them, who were or were not unfit for work by illness or laziness. Besides this, the most vigorous are frequently the most unmanageable. Though size and strength in an engineer may keep such men in order, yet ruling by physical strength is a poor way. Such an engineer, though obeyed with more apparent alacrity than another, is really worse served than those who regard the men as human, and not mere machines. There is a well authenticated case of a "second" who, finding complaints made by one of the men that he could not stand the heat of the fires, had the man lashed to the iron companion ladder in front of the opened fire-doors. The victim died in consequence, but a doctor being on board, the case was, it is said, entered in the log-book as one of apoplexy, or some other natural cause, and the matter was hushed up. According to latest accounts that "second" was still in the same employ. Strict discipline can be maintained by far better means than this.

It is often difficult to know what to do with a man who "lays up." In a case of real illness he will meet sympathy, tempered, perhaps, with an occasional growl from those who are doing his work; but when a man has purposely come aboard ill, his comfort must be of the scantiest and his medicine of the nastiest, or he will lie in his bunk all the voyage. One fireman, suspected of being a loafer, was summoned aft to receive his medicine which was concocted entirely with a view to its being of specially atrocious flavor. He drank it calmly to the bottom, looked into the glass, and, seeing a few dregs left, drained these to the bottom; then, expressing his gratitude for the good he knew it was going todo to him, walked feebly away, leaving the stewards in consternation at his hardihood. Engineers have to use their judgment in such cases, and sometimes must have a man driven to his work by physical force or the threat of it, though in one unfortunate instance a man so driven died most inconveniently on the deck. Sometimes one of the men, envying the happy lot of the loafer in his bunk, will fall ill also, so that loafer No. 1 has to be driven forth to do the work of No. 2. Where such happens, it will almost certainly come to pass that the illness will go round all the men in rotation one at a time, as if pre-arranged; thus the one who set the ball rolling is forced to do his share of work till his turn comes around for well-earned repose. Soon after the writer went to sea, he mentioned to his chief that he was out of sorts. To his surprise, he heard that the chief also was ill; and on narrating the coincidence to the "second," he discoverd to his disgust that he was also similarly affected. The fact is, that at sea a man must work, whether well or ill, unless absolutely unfitted for it.

Firemen are usually well in port, for there the drawbacks of a forecastle residence are more felt, and there is also the ever-present fear of being left behind in a foreign hospital. It can thus easily be seen that a fireman's lot is no bed of roses, and that his pay is well earned. Though his pay exceeds that of a sailor, while his hardships may not be greater than those of his acquaintances who live and work on shore, when work is to be had, and though beneath both him and them are others yet worse off, yet the engineer should remember that the fireman is but weighted down a little lower than himself, by the same competition which is diminishing his own pay as well as the profits of the shipowner, sucking down wages and profits that rents may rise. Many of these firemen, in spite of all disadvantages, give promise of the highest qualites, only awaiting development.

In selecting firemen, those are especially to be avoided who parade their experience when applying for work. These are the sea lawyers, dreaded of captains; or rather they are captain and engineer and steward all in one. It is amusing to see one such, sitting in the centre of a crowd of firemen and sailors, discoursing, with voluble tongue, of how his engineer or that captain acted in certain circumstances, and always the disparagement of those he is under at the time. He narrates minutely how well they were provisioned in the last ship; for such a one always has found "the last ship" so full of perfections that one wonders why he ever left it.

Sailors and firemen, too, often have good cause to complain of their food, and grumble sometimes to the verge of munity by refusing to work with the strength which they have not derived from insufficient and bad food. They know that in many cases, unless they insist on getting "their whack" they will go short. Though there are many worthy and kind-hearted men among ship captains, yet, the opposite being the rule, grumbling has also become the rule, and the men cannot always deny themselves the pleasure of complaining, even when well treated—like the man who was never happy unless he was miserable.

In one ship, where, as the story goes, the captain was determined to conquer by kindness, he had a goose cooked, and sent to the men at Christmas. Curiosity caused them to gather about the galley door to discuss the event, the conclusion being that there "must be something wrong with the ——goose or it would not have been sent" to them. Such discontent throws light on all past and present relations in that and every other ship. On another similar occasion the captain was said to have sent a plum-pudding to his men. After consuming it, a deputation went aft to return thanks, and with the reques that the next time a plum-pudding was sent to them there might be more plums. With complaints of bad food, the engineers cannot directly deal. The men have to fight their own battle, and, as a rule, they are well able to do so. Of course, if they refuse work in consequence of insufficient food, the question comes prominently to the front; but a captain will do much to avoid this. When a captain is acting fairly to his men, the most effective cure he can apply is to put them strictly on their legal allowance, stopping all extras. The threat of this will usually stop any unreasonable complaints.

With engineers or firemen in opposition to the powers that be, care must be taken to keep out of the log book, except their case is good. Once a formal complaint is laid before the captain, he has to "log" the offender, and this he dare not afterward erase. The log book, after each voyage, is scrutinized by the board of trade, and so strict are they, that in one case, when a large blot had fallen on the page, the captain had to make a formal declaration that nothing was concealed by it. Only when other means fail should a man be logged. It not only makes him reckless for the rest of the voyage, on the principle of being "as well hanged for a sheep as for a lamb," but the official investigation of the matter at home leads to much trouble and delay, and its issue is uncertain. Once the voyage is over, many matters which seemed at the time to be of importance, sink into insignificance. Unless in very bad cases, there are many ways of punishing a man at sea without any formal trial ashore. In some cases, an effective way is to turn the laugh of his fellows against an offender, such as telling him that, as his knowledge is of a superior kind, you would be glad if he would take charge of the work himself. Such a request rarely fails to have a disconcerting effect, whether stated jocularly or with contempt.

The board of trade is the sea-farer's best friend, whether he hail from the sooty or the tarry side of the ship. Argus-eyed, hundred-handed, its agents, the consuls, are in every port to redress wrongs and give assistance and advice of every kind to whoever applies for it, and none dare prevent such application. Though a captain and engineer may complain that it shows an undue partiality for firemen and sailors in order to display its supremacy, yet its influence is for good, and extends far beyond its visible limits, the dread of it, preventing even an a tempt at snch oppression as was once openly practised—for justice was tardy and uncertain in the days preceedigg the steamship and telegraph.—[Practical Engineer.

The Bureau of Navigation, Treasury Department, reports a small increase during the last fiscal year in the tonnage of the country, arising from the building of vessels, chiefly for the coasting trade. The tonnage built during the previous year was 150,450 tons, while that built during the past year was 218,086 tons, comparing favorably, according to the statistics available, with the amount built during that time in Austria, Belgium, Denmark, France, Germany, the Netherlands, Italy, Russia, and Sweden combined. The amounts in either case, however, are small as compared with the tonnage built in the United Kingdom, where, on the 30th of June, 1888, 337 vessels of 608,118 tons gross, were under construction.

SHIPPING PROSPERITY—WILL IT LAST.

Three correspondents have asked us in the last few days for the statistics of vessels added to and removed from the registers of the United Kingdom; and we give a summary of them now for the interest of our readers generally. We may first remind those interested that for some years there had been an enormous increase in our shipping; that the rapidity of that increase was checked four years ago; and that, with less tonnage built, and with a continuous loss, there was a year ago a balance attained, the tonnage added being scarcely as much as that lost. To that fact is to be added the remembrance that the use of ships is enlarging. Europe needs more and more to import its food, and in times like the present it sends out more of its manufactures and other productions. Hence, with construction scarcely meeting losses, and trade growing, it was only a question of time how long it would be before vessels grew scarce enough to command more remunerative rates of freight than they had obtained for some years prior to the end of last year. The need for greater grain supplies came this autumn, and acted as a stimulus, so that the freight market has bounded upwards. A result has followed which many ship-owners look upon with much regret, there has been an enormous amount of new vessels ordered, and some of these are now coming into the market. It is here that we get to the statistics we referred to in the opening sentence, and find their use. Putting these figures shortly, we have the following facts from the official registers for the United Kingdom, that is, apart from the colonies. In the first ten months of the present year, we have added from 4,000 tons to 34,000 tons per month of net steam tonnage, after making up the losses the fleets sustained; but on the other hand, we have lost from 11,000 tons to 21,000 tons of sailing vessels monthly, after allowing for the sailing vessels built. On the ten months as a whole, we have gained over 210,000 tons of steamers and lost over 120,000 tons of sailing vessels. The sailing fleet cannot do ton for ton the same work as the steamers; a proportion is in all such calculation assigned for the difference, and taking the usual though not invariable calculation, the summary of the whole shows this result; after making all allowances, we have added 17,000 net steam tons monthly this year to the merchant shipping of the United Kingdom. So far, this tonnage has been taken up at rates that will yield profit to the shipowner. But it is obvious that when to this there is added the tonnage which foreign nations are acquiring, it is a question how long it will be before the shipowners kill the goose which is at the present time laying such golden eggs. The bad harvest of Western Europe will call for heavy grain imports for months; the increase in export and import trades means the employment of many additional steamers; the finding out of new trades points also in the direction of permanently enlarged work; and there is to be put the fact that the wooden ships are dying off very rapidly. But when allowance is made for all these facts, there remains the addition of 17,000 tons of steam shipping monthly, and that addition must in a year or two more than overtake the needs of the world for additional vessels. At the present time, the class of steamers being built is chiefly vessels of large tonnage, and this would point to that class first finding the effects of the rush of capital into steamers. These are the plain deductions from the figures of the registrar general of shipping and seamen. It is for the managers of steamships to say how long the prosperity the trade knows is to continue. And still more pertinent would be the reminder to the investors whose capital is rushing again into steam shipping that it has only a few months ago emerged from adversity, and it is the capitalist who can, by tightening his purse strings or loosening them, decide how long shipping prosperity is to last.—New Castle Chronicle.

The new United States dynamite gun cruiser Vesuvius, rushes through the water at about 25 miles per hour, which is believed to be the greatest speed ever attained by such a formidable vessel of war.

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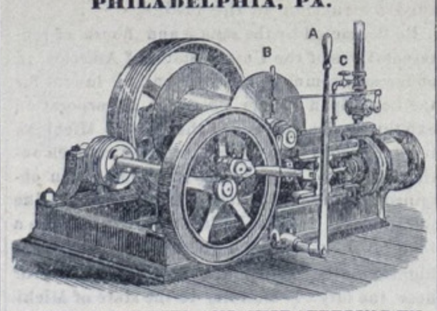
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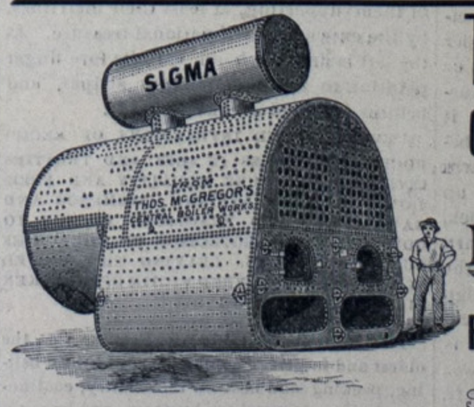

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No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	*10 50 A M	*10 55 A M
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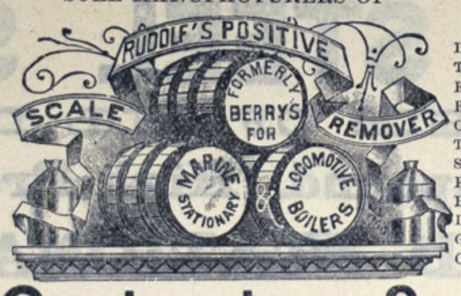

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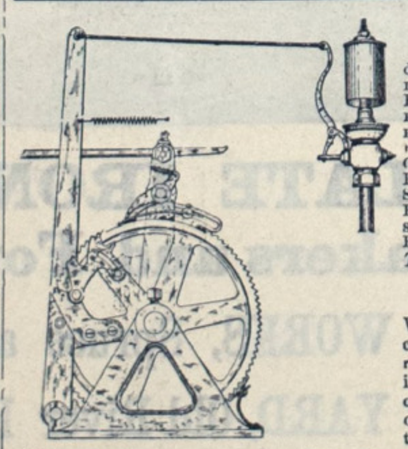

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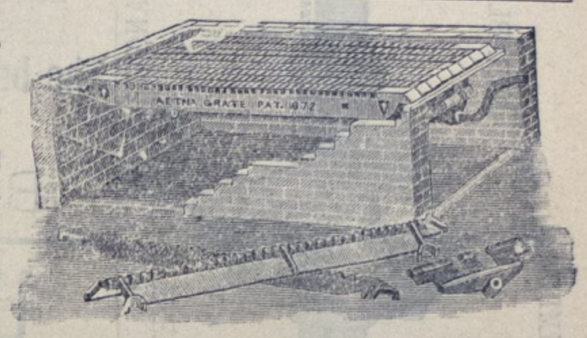

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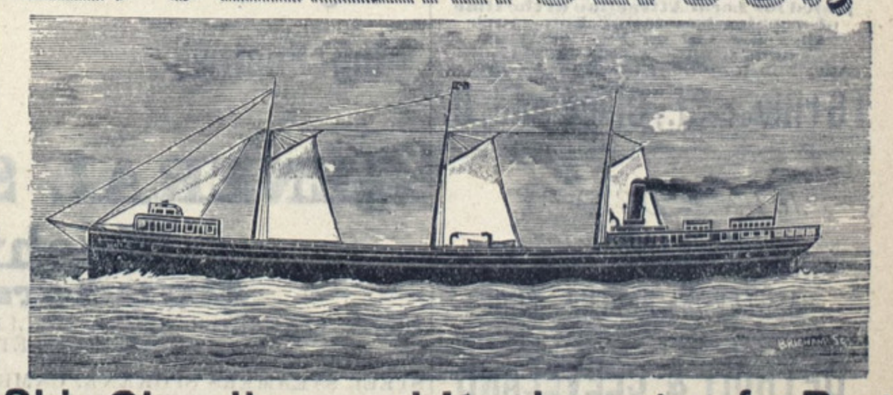

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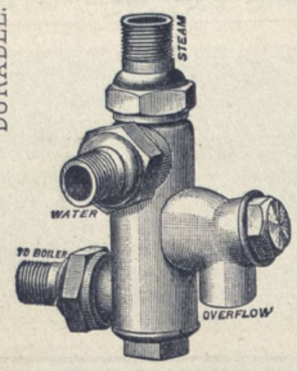

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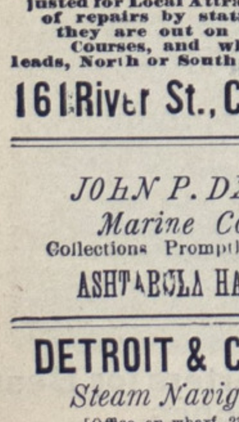

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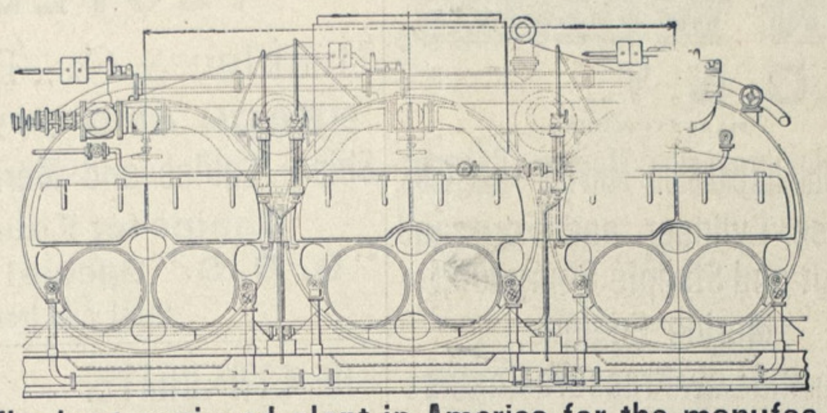

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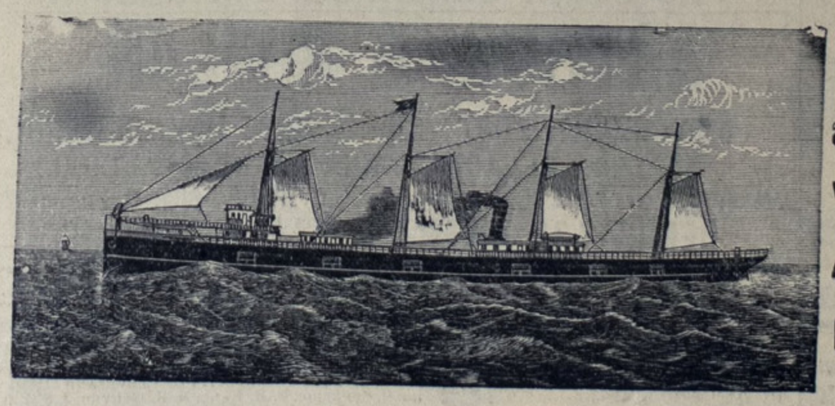

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